Table 6-1
Comparative Analysis of Soil Remedial Alternatives
Rolling Knolls Landfill Superfund Site - Feasibility Study
Chatham, New Jersey

	Soil Alternatives							
	1	**2**	**3a**	**3b**	**3c**	**4a**	**4b**	**5**
1. Overall Protection of Human Health and the Environment								
Human Health Protection	NA	Does not meet NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion
Environmental Protection	NA	Does not meet NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion
2. Compliance with ARARs								
Chemical Specific ARARs	NA	Does not meet NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion
Location Specific ARARs	NA	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion
Action Specific ARARs	NA	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion	Meets NCP criterion
3. Long-Term Effectiveness and Permanence								
Magnitude of Residual Risk	NA	Poor	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Adequacy and Reliability of Controls	NA	Moderate	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
4. Reduction of Toxicity, Mobility, and Volume Through Treatment								
Treatment Process used and Materials Treated	NA	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Amount of Hazardous Materials Destroyed or Treated	NA	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Degree of Expected Reductions in Toxicity, Mobility or Volume through Treatment	NA	Poor	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Degree to which Treatment is Irreversible	NA	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Type and Quantity of Residuals Remaining after Treatment	NA	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Whether the Alternative Would Satisfy the Statutory Preference for Treatment as a Principal Element	NA	Poor	Poor	Poor	Poor	Poor	Poor	Poor

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5. Short-Term Effectiveness								
Protection of Community During Remedial Actions	NA	Excellent	Good	Good	Good	Moderate	Moderate	Poor
Protection of Workers During Remedial Actions	NA	Excellent	Excellent	Excellent	Excellent	Moderate	Moderate	Good
Environmental Impacts	NA	Excellent	Good	Good	Good	Good	Good	Poor
Time Until Remedial Action Objectives are Achieved	NA	Poor	Excellent	Excellent	Excellent	Good	Good	Moderate
6. Implementability								
Ability to Construct and Operate the Technology	NA	Excellent	Excellent	Excellent	Excellent	Good	Good	Moderate
Reliability of the Technology	NA	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Ease of Undertaking Additional Remedial Actions, if necessary	NA	Excellent	Excellent	Excellent	Excellent	Good	Good	Moderate
Ability to Monitor Effectiveness of Remedy	NA	Excellent	Excellent	Excellent	Excellent	Good	Good	Excellent
Ability to Obtain Approvals and Coordinate with Other Agencies	NA	Excellent	Excellent	Excellent	Excellent	Good	Good	Moderate
Availability of Off-Site Treatment, Storage, and Disposal Services and Capacity	NA	Excellent	Excellent	Excellent	Excellent	Moderate	Moderate	Excellent
Availability of Necessary Equipment and Specialists	NA	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Availability of Prospective Technology	NA	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

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7. Costs								
Indirect Capital Cost (Design/ Construction Oversight/ Permits)	NA	$63,400	$1,902,000	$2,073,900	$2,507,400	$2,519,800 - $4,444,500	$2,771,600 - $4,696,300	$4,677,900
Direct Capital Costs	NA	$515,400	$12,563,500	$13,690,300	$16,532,900	$28,251,800 - $49,760,300	$31,065,000 - $52,573,400	$47,256,200
Post-Construction Operation, Maintenance, and Monitoring Costs	NA	$182,200	$2,058,600	$2,058,600	$2,058,600	$2,058,600	$522,000	$3,495,900
Total Costs	NA	$761,000	$16,525,000	$17,823,000	$21,099,000	$32,831,000 - $56,264,000	$34,359,000 - $57,792,000	$55,430,000
8. State (or Support Agency) Acceptance	TBE	TBE	TBE	TBE	TBE	TBE	TBE	TBE
9. Community Acceptance	TBE	TBE	TBE	TBE	TBE	TBE	TBE	TBE
Estimated Time to Achieve RAOs After Construction Begins	**NA**	**0.5 to 1.0 years**	**1.5 to 2.0 years**	**1.5 to 2.0 years**	**1.5 to 2.0 years**	**2.0 to 2.5 years**	**2.0 to 2.5 years**	**3.0 to 3.5 years**

Notes
1. Alternative Description:
   Alternative 1 - No Action
   Alternative 2 - Site Controls
   Alternative 3a - Site Controls, Capping of Selected Area to Reduce Overall Risk, and Remediation (Consolidation Under Selected Area Cap) of Areas of Particular Concern (APCs), and Remediation of Non-Vegetated Areas with Soil Sample Results Above Remediation Goals
   Alternative 3b - Site Controls, Capping of Selected Area to Reduce Overall Risk, and Remediation (Cap In-Place) of APCs, and Remediation of Non-Vegetated Areas with Soil Sample Results Above Remediation Goals
   Alternative 3c - Site Controls, Capping of Selected Area to Reduce Overall Risk, and Remediation (Offsite Disposal) of APCs and Remediation of Non-Vegetated Areas with Soil Sample Results Above Remediation Goals
   Alternative 4a - Site Controls, Excavation and Off-Site Disposal of Selected Area to Reduce Overall Risk, Remediation (Cap In-Place) of APCs, and Remediation of Non-Vegetated Areas with Soil Sample Results Above Remediation Goals
   Alternative 4b - Site Controls, Excavation and Off-Site Disposal of Selected Area to Reduce Overall Risk, Remediation (Offsite Disposal) of APCs, and Remediation of Non-Vegetated Areas with Soil Sample Results Above Remediation Goals
   Alternative 5 - Site Controls and Capping of All Landfill Material
2. NCP - National Contingency Plan
3. TBE - To be evaluated. The findings from the detailed analysis of the State (or support agency) acceptance and Community acceptance criteria will be presented in ROD once USEPA completes their review of and provides comments on the final FS report
4. NA - Not applicable.

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